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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/567,331

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Franciscus Hubertus Maria Stappers

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EXAMINER

FRANK, NOAH S

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

05/11/2010

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/567,331	<b>Applicant(s)</b> STAPPERS, FRANCISCUS HUBERTUS MARIA	
	<b>Examiner</b> NOAH FRANK	<b>Art Unit</b> 1796	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 18 March 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 11-22 is/are pending in the application.  
     4a) Of the above claim(s) 5,6 and 17-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,8,9,11,12,14-16 and 20-22 is/are rejected.
- 7) ☒ Claim(s) 3,7 and 13 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☒ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 4, 9, 11-12, 16, 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Honnick (US 6,669,835) in view of Wicks. *Organic Coatings: Science and Technology*. 1999.

Considering Claims 1-2, 4, 9, 11-12: Honnick teaches aqueous compositions containing polymerizable components and a water incompatible catalyst sorbed onto an inorganic particulate carrier (Abs). The polymerizable components may be isocyanates and amines or epoxies (cross-linkable by polar reaction) (8:25-35, 60-65). The inorganic particulate carrier may be silica (sand) (5:45-50). The catalyst may be dibutyltin dilaurate (5:45-50), a Lewis acid.

Honnick does not teach the catalyst as a separate part of a two phase system. However, Wicks teaches that two package coatings may contain the catalyst in a separate third package so that cure rate can be adjusted for variations in ambient conditions (p193). Honnick and Wicks are analogous art because they are from the same field of endeavor, namely urethane coatings. At the time of the invention a person of ordinary skill in the art would have found it obvious to have used a separate catalyst

phase, as taught by Wicks, in the invention of Honnick, in order to allow adjustment of cure time. This combination would allow application of the catalyst after mixing of the urethane components, resulting in the claimed invention.

Considering Claims 16 and 21-22: Honnick does not teach the claimed amount of catalyst in the powder phase. However, the experimental modification of this prior art in order to ascertain optimum operating conditions fails to render applicants' claims patentable in the absence of unexpected results. MPEP 2144.05. The amount of catalyst directly affects the curing speed of the coating. Consequently, it would be obvious to optimize.

Claims 14-15 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Honnick (US 6,669,835) in view of Wicks. *Organic Coatings: Science and Technology*. 1999., as applied to claims 1 and 11-12 above, and further in view of Ashley et al. (US 5,039,718).

Considering Claims 14-15 and 20: Honnick teaches the basic claimed composition as set forth above.

Honnick does not teach the claimed particle size of sand. However, Ashley et al. teaches silica fillers (6:35-45) wherein the particles may be a mixture of two or more sets of particles with two widely differing mean particle sizes such that particles of one or more set can fit in the interstices of those of the others within the matrix (7:5-10). Honnick and Ashley are analogous art because they are from the same field of endeavor, namely silica fillers. At the time of the invention a person of ordinary skill in

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the art would have found it obvious to have used a multimodal particle distribution, as taught by Ashley, in the invention of Honnick, in order to achieve high filler loadings (7:5-10 of Ashley). With regard to the particular claimed particle size(s) and ranges of the multimodal distribution, the experimental modification of this prior art in order to ascertain optimum operating conditions fails to render applicants' claims patentable in the absence of unexpected results. MPEP 2144.05. As taught by Ashley, multimodal distributions are used to fill interstitial space between fillers and achieve a higher loading (7:5-10). It then flows naturally that there must be a higher percentage of the larger filler with a lower percentage of the smaller filler(s), such that the interstitial spaces are filled.

Claim 8 rejected under 35 U.S.C. 103(a) as being unpatentable over Honnick (US 6,669,835) in view of Wicks. *Organic Coatings: Science and Technology*. 1999., as applied to claim 1 above, and further in view of Caldwell et al. (US 6,316,535).

Considering Claim 8: Honnick teaches the basic claimed composition as set forth above.

Honnick does not teach the powder phase comprising one or more amines. However, Caldwell et al. teaches that long chain tertiary amines may be used as a catalyst as an alternative to dibutyltinlaurate or zinc octoate (3:5-10). Honnick and Caldwell are analogous art because they are from the same filed of endeavor, namely polyurethane coatings. At the time of the invention a person of ordinary skill in the art

would have found it obvious to have used a tertiary amine, as taught by Caldwell, in the invention of Honnick, as an equivalent alternative catalyst.

### ***Allowable Subject Matter***

Claims 3, 7, and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: There is insufficient motivation to replace the catalysts of Honnick. Catalysts are dependent on the system in which they are used, and there is no reasonable expectation of success that Lewis acid and base precursors, phosphines, or zirconium coated titanium dioxide would catalyze the system.

### ***Response to Arguments***

Applicant's arguments filed 3/18/10 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments regarding Caldwell are persuasive. As fillers are customarily employed in large amounts and are well dispersed constituents, the skilled artisan would not be motivated to store them separately as this would be detrimental to the structural properties of the coatings and require substantially more work from the end user.

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The rejection over Brindopke has been withdrawn based on the amendment. There is insufficient motivation to sorb the catalysts of Brindopke onto a solid carrier.

In response to applicant's arguments regarding Honnick, while Honnick desires a smooth coating, a separate catalyst mixing step will not prevent a smooth coating. Furthermore, as the claims are drawn to a system, the limitations regarding the method of future intended application of the powder phase have no bearing on the patentability of a composition claim. While it may be the intention that the catalyst is sprinkled onto the coated system, this is not a requirement of the claims.

### ***Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NOAH FRANK whose telephone number is (571)270-3667. The examiner can normally be reached on M-F 9-5 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on 571-272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NF  
5-5-10

/Marc S. Zimmer/  
Primary Examiner, Art Unit 1796